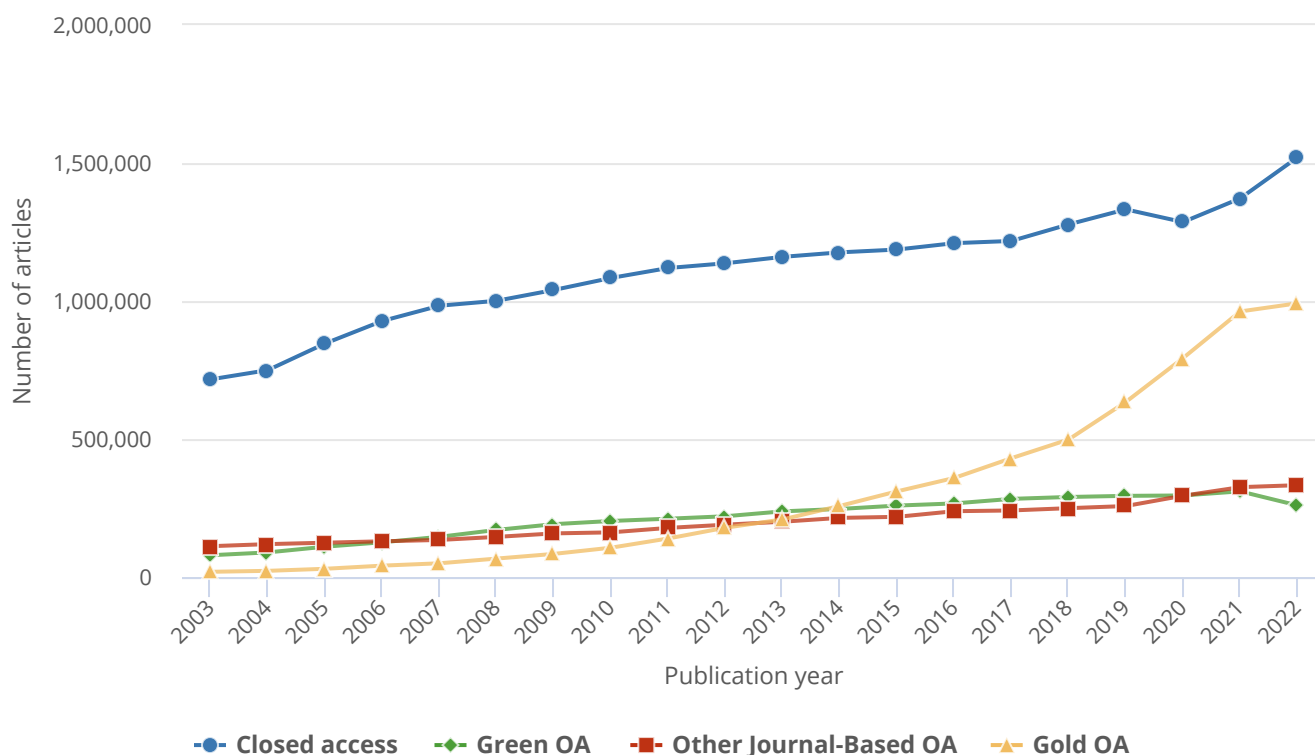


Figure PBS-8

## S&amp;E publications, by publication access type: 2003–22



OA = open access.

**Note(s):**

Articles refer to publications from a selection of conference proceedings and peer-reviewed journals in S&E fields from Scopus. Articles are classified by their year of publication. OA types are mutually exclusive. For articles published under multiple OA types, the article will be counted as part of only the first type it matches in this list: Gold OA, Other Journal-Based OA, or Green OA. Summing all OA and closed-access article counts results in a smaller number of articles than for all S&E because the access status of some articles (e.g., those without digital object identifiers) cannot be reliably ascertained. Green articles are published in toll-access journals but archived in an OA archive, or "repository." These repositories may be discipline specific (like arXiv) or institutional repositories operated by universities or other institutions. Green articles may be published versions or preprints and can have any license or no license. Bronze (Other Journal-Based OA) articles are free to read on the publisher's website, without a license that grants any other rights. There may be a delay between publication and availability to read, and often articles can be removed unilaterally by the publisher. Hybrid (Other Journal-Based OA) articles are free to read at the time of publication, with an open license. These are usually published in exchange for an article processing charge. Gold articles have all the same characteristics as Hybrid articles but are published in all-OA journals, which are in turn called "Gold journals" or just "OA journals."

**Source(s):**

National Center for Science and Engineering Statistics; Science-Metrix; Elsevier, Scopus abstract and citation database, accessed April 2023.

*Science and Engineering Indicators*